DOCUMENT RESUME

ED 434 328 CS 013 723

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TITLE Knowledge through Humor: An Original Approach for Teaching Developmental Readers.
PUB DATE 1999-05-00
NOTE 48p.; Paper presented at the Annual Meeting of the National Institute for Staff and Organizational Development International Conference on Teaching and Leadership Excellence (Austin, TX, May 23-26, 1999).
PUB TYPE Guides - Classroom - Teacher (052) -- Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Cartoons; Classroom Techniques; *High Risk Students; Higher Education; *Humor; Instructional Effectiveness; *Reading Difficulties; Reading Teachers; *Remedial Reading; Student Educational Objectives; Student Needs
IDENTIFIERS Knowledge Acquisition

ABSTRACT

This paper suggests that developmental reading teachers could benefit from a little laughter or a little humor in their courses, since they teach subject matter no one wants to hear or read about to students who resent being placed in the classes, and they must do this well enough so that their students will pass a test they have already failed once. The paper elaborates on some of the ways that humor can be used systematically by most college instructors. It presents a compilation of several studies and informal research to determine exactly what separates good students from poor ones in the area of reading and offers a synopsis of a comparison of two at-risk entering freshmen to point out that goals and attitudes seem to make the most difference between college success and failure. The paper then advances the thesis that cartoons have several distinct advantages for instructional purposes even beyond the opportunity to provide background information, and it provides a rationale and detailed examples of the use of cartoons. (Contains 5 notes, 28 references, a sample unit, and 2 sample background assessment instruments.) (NKA)

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Knowledge Through Humor: An Original Approach for Teaching Developmental Readers.

by Phyllis Guthrie

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P. Guthrie

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KNOWLEDGE THROUGH HUMOR: AN ORIGINAL APPROACH FOR TEACHING DEVELOPMENTAL READERS.

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While humor is definitely a part of most Developmental Reading classes (mostly at inopportune times) the Developmental Reading teacher is seldom hired for his/her abilities as a stand-up comic. Most teachers take their responsibilities seriously, and shy away from trying to be funny.

The fact is, humor happens all the time in Developmental Reading classes—we just have to learn to take advantage of it when it does, and also learn to create opportunities for humor to happen. For instance, take this gem of a sentence a Developmental Writing teacher found on an essay assignment. "The girl tumbled down the stairs and lay prostitute at the bottom." This teacher was able to capitalize on the inherent humor by writing in the margin of the student's paper, "You must learn to distinguish between a fallen woman and one who has merely slipped."

If ever there was a group, students and teachers alike, who could benefit from a little laughter, or a little humor, it must be the Developmental Reading teachers of this world!

- We teach subject matter no one wants to hear or read about,
- To students who resent being placed in our classes,
- And, we have to do it well enough so our students will pass a test they have already failed once.

Ron Berk, of John Hopkins University, in his book *Excellence in Higher Education* says, " . . .there are numerous claims about the benefits of humor in college teaching. Humor:

a. decreases anxiety, tension, stress and boredom
b. improves attitudes toward the subject

c. increases comprehension, cognitive retention, interest, and task performance.
d. increases motivation to learn and increases satisfaction with learning; and
e. promotes creativity and divergent thinking."

Why is humor not being used systematically by most college instructors? Is it because none of us have ever had any formal training to write humorous material, apply it appropriately to our disciplines and deliver it effectively? Is it because we think we have to be able to respond to questions in class with witty remarks and tell jokes like Billy Crystal? Or is it because we think humor in any form is undignified and frivolous and will detract from our classroom goals?

If any of the above is the reason why you are not deliberately incorporating humor into your classes, then you are like the majority of developmental reading teachers. These are the reasons why I decided to use cartoons to communicate the background information I perceived is a necessary part of developmental reading education. I felt the humor in cartoons would help convey the background information that would otherwise be considered boring information to the average student.

I have never been considered a "life-of-the-party" kind of person by any stretch of the imagination, and much as I would like, I am not even a person who can tell good jokes. The use of cartoons does two things for me: (1) it shows my students in a comfortable, familiar way that background knowledge is necessary if you are going to get the most enjoyment out of life, and – (2) you have to read to get that knowledge!

Another interesting fact about the use of humor in class is that it requires *active* participation on the part of the student in the learning process. A student cannot laugh and snore at the same time!

W. Lee Grant put it all in educational perspective when he said, "Shared laughter creates a bond of friendship. When people laugh together, they cease to be young and old, teacher and pupils, worker and boss. They become a single group of human beings."

What better atmosphere for learning to take place can there be? If humor is not the answer to helping at-risk reading students, at least we will be creating a delightful memory concerning reading for them instead of one that hurts or bores.

Perhaps teachers should be required to take the same oath that doctors do by substituting the word *student* for *patient*. The oath that says to doctors, "If you cannot help a patient, at least vow to do nothing that will hurt him."

Humor is a delightful and a powerful way to open doors, minds and hearts. It is exactly what teachers should be doing and it can be done best by extending a student's cultural literacy, building his background knowledge and creating the links between what is known and what is being learned.

In the May issue of the *Kappan Magazine* the Council of 21, chaired by Sen. John Glenn, redefines the teacher as the orchestrator of learning for students, one who helps them turn information into knowledge, rather than one who is the purveyor of knowledge. This is exactly what the use of humor and cartoons helps the teacher do.

Mark Turner said in his book, *Reading Minds*, "Systematicity, links, connections—these are, for the classical rhetorician, what education must live by." And Louise Rosenblatt [1] recommends creating an ideal classroom climate—conducive to fostering a situation in which students can negotiate meaning in a supportive milieu. The use of cartoons serves to function in a way to make both Turner and Rosenblatt's theories come to life. For instance take the phrase: *Necessity is the mother of invention.* There is no attempt to define what the mother-child relationship is, but you have to have that information to understand the phrase. It is impossible to arrive at the full meaning of the phrase if all you do is decipher it formally word by word.

Every text, even the most elementary, implies information that it takes for granted and doesn't explain. Knowing such information is the decisive skill of reading that the use of cartoons is addressing.

No amount of memorizing information can provide this background information to students. Only practice in dealing with information can give it to students. The method shared in this presentation is an attempt to provide the student with the opportunities to practice all kinds of information in an enjoyable and entertaining way.

In actual practice among the culturally literate, bits of information do not occur on their own; they occur in units of discourse that can stand on their own. These cartoon

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[1] Rosenblatt, L. (1991). "The Reading Transaction: What for." In Brenda Miller Power and Ruth Hubbard (Eds.) *Literacy in Progress: The Heinemann Reader*, Heinemann, Portsmouth, NH

units have been designed to exist separately and can be accessed and utilized when and where they fit the curriculum and the needs of the students.

There have been many studies done trying to determine exactly what it is that separates good students from poor ones in the area of reading. Once it was determined that the I.Q. was not the primary factor, the focus was on other reasons. The following information is a compilation of several studies by others and my own informal research to determine these reasons. So far, the newer research has not divulged any revolutionary evidence to change these assumptions.

Differences between Developmental Reading Students and Non-Developmental Reading Students

I.Q.	No noticeable difference in the average student*
Decoding	No noticeable difference in the average student
Literal Comprehension	No noticeable difference in the average student
Speed	Small differences noted **
Concentration	Noticeable differences
Motivation	**Marked difference**
Read for enjoyment	Developmental Students 9% Non-Developmental Students 77%

*"Average" does not include handicapped students.

**Speed is a difficult factor to measure because it is closely related to a Developmental Reading student's confidence. I.e. They tend not to trust themselves to have read it correctly, and spend time going back over material.

To further illustrate what most developmental teachers have already discovered, the following synopsis of a comparison[2] of two at-risk entering freshmen points out that goals and attitude seem to make the most difference between college success and failure.

LUKE	ALEXANDRA
Diagnosed with "language based LD in auditory and sequential processing." placed in an LD program, 11th grade.	Diagnosed with "auditory dyslexia" in Middle school. Fought with parents help to stay in "regular" classroom.
Read at grade level. IQ in the average range and his SAT scores were very low	Read at grade level. IQ in the average range, and low SAT s cores.
Spent a large number of hours outside of school on work, sports and volunteer	Was involved in a large number of time-consuming extracurricular activities and

[2]Two at risk students were compared by JoAnn Yaworski in an article titled "Why Do Students Succeed or Fail?" A case study Comparison in the *Journal of College Reading & Learning* Vol. 29, No. !, Fall 1998.

work in high school.	volunteered in many areas.
Believed learning was more difficult for him than for others and that "good" students never had to expend effort to achieve.	Believed students who excelled academically put no effort into their studies and that learning for her would always be a struggle. Made her angry.
Acknowledged academic work is harder for him, and gives higher priority to social life than school work. Is satisfied to just "get by". Peers influence whether he will study or socialize.	Battled against stigma of LD label. Said her disability only occurred when she read material that was uninteresting in college. Decoded without real meaning resulting.
Parents were suppportive and very involved in his education. They maintain close contact by phone.	Parents helped in her fight in middle school and taught her to value education. She also attracted mentors who could help her through difficulties.
Will work hard on school work if he will not have to attend summer session. Uses some reading strategies but is not convinced they help get him good grades. No clear goal for being in college. Does not see a connection between his courses and a future career.	She realizes she can increase her ability to succeed through effort and time management skills. Uses effective study methods. Goes to class prepared regularly, and participates in discussions. Clearly defined goal of becoming a college professor and writer which is being implemented by steps that started when she fought to stay in regular class.
Is on academic probation and is still considered "at-risk."	Is on the Dean's list.

If developmental reading teachers can be convinced the reason their students do poorly is not primarily because of IQ or miscellaneous decoding and comprehending abilities, but come from attitude and a lack of goals, why then do developmental teachers spend so much time teaching students how-to-read strategies and techniques? My thesis is that cartoons have several distinct advantages for instructional purposes even beyond the opportunity to provide background information.

First, cartoons provide graphic clues along with printed material. The printed word often threatens developmental students who associate it with past frustrations and failures. A graphic clue to augment the printed word allows them to initially bypass the threat and incorporate printed material later as they develop confidence in their skills. In

addition, the exaggerated humor built into cartoons immediately grabs interest, diffuses tension and lets students relax.

Next, students are familiar with cartoons and have positive associations with them. Furthermore, in spite of their light touch, cartoons are sophisticated and don't demean one's intelligence. Finally, interpreting cartoons creates a bridge for students to be able to see the importance of other graphics in their content courses such as charts, graphs and picture diagrams.

Defining unknown vocabulary through surrounding words and phrases is a high-level thinking skill that also aids students in their content courses by liberating them from the dictionary. When this skill is mastered, students can read without interruption and improve their comprehension. Using cartoons to unlock the meaning of unknown words in context has been a particularly effective teaching strategy. But using cartoons in the classroom is not limited to the teaching of vocabulary in context. Cartoons have a broad application for other reading skills essential for success in content-based courses. For example, a series of related cartoons in a story line could be employed to teach skills such as identifying the main idea and predicting outcomes.

However, making students love or want to read in one or two semesters, making readers out of non-readers, while we teach them how to find the main ideas, etc. etc. is a monumental task! These are students who have been getting this kind of education since Jr. Hi! It didn't work then, why do we think it will work now? *There has to be another reason for the lack of reading aptitude found in developmental students and it is my belief that the reason could be related to a lack of general background knowledge—a vicious circle probably caused by the fact that they do not read enough.*

Sticht and McDonald in their book, *Making the Nation Smarter*[1] said:

> One of the hallmark achievements of cognitive science is the confirmation of the dual nature of cognition: all human intellectual activities, such as thinking, communicating, problem solving and learning require both processes and knowledge.

[1] Sticht, T. and McDonald, B. (1989). *Making the Nation Smarter : The Intergenerational Transfer of Cognitive Ability.* San Diego: Applied Behavioral and Cognitive Sciences, Inc.

Perhaps we have been concentrating on the wrong part of the dual nature of cognition—the process, when we should be concentrating on the knowledge part? The newest research, based on how the mind works, indicates that reading for the young adult does not follow the orderly pattern of methodology used with beginning readers. They don't first identify words, then word meanings, and next combine word meanings to get the meaning sentences; and finally combine sentence meanings to get the meaning of a whole text. That may be what young readers do, but it is not what happens at the adult level.

The new picture that is emerging from language research for the young adult is more complicated but really more useful for those teaching young adults. It brings to the fore the highly active mind of the reader, who is discovered to be not only a *decoder* but a *supplier* of much essential information that is not written down.

The explicit meanings of a piece of writing are only the tip of the iceberg of meaning; the biggest part lies below the surface of the text and is made up of the reader's own relevant knowledge. This background information is a far more important ingredient in the reading process than has previously been supposed. When students do not have the necessary background knowledge to really understand what they are reading and learning, some interesting remarks can show up on their papers to let us know. For instance these remarks from some other developmental teachers' classes and mine:

> A fossil is an extinct animal. The older it is, the more extinct it is.
>
> The pyramids are a range of mountains between France and Spain....

And last, when I wanted to use a quote from Elizabeth the First to show how valuable time is, one of my students said, "You mean there was another one?"

I think, when this kind of remark ensues more often than not, teachers can be fairly certain of the need for background information. John and Suanne Roueche[4] said that the more "world information" we have the better we can process new information in any medium at any age. Informationally deprived people, with limited background knowledge for whatever reason, are at a disadvantage in any testing situation.

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[4] Roueche, John E. & Roueche, Suanne D. (1993). *Between a Rock and a Hard Place*. Community College Press, a division of the American Association of Community Colleges, Washington, D. C.

Students with limited world knowledge are constantly running across passages that they do not understand fully because the texts contain important referential clues to knowledge they do not have. These are my students! And they may be your students, too. They can read—they can comprehend (decode and comprehend literally) the individual sentences, but they cannot make sense out of the whole.

None of the materials, or tests, take into consideration, except subliminally, the level of background knowledge a student has. No consideration is given the possible negative effects a deficiency in background knowledge will have on test scores or on the academic success of the student. Neither do they consider the inequalities present among ethnic groups with regard to background information.

E. D. Hirsch says in his book *Cultural Literacy*, that what distinguishes good readers from poor ones, is the possession of a lot of diverse, specific information. When readers constantly lack information, dictionaries and encyclopedias are of little help. A consistent lack of necessary information makes the reading process so laborious that it doesn't provide meaning—it's why students say, "I don't like to read."

In the case of the student who didn't realize that there was another noteworthy Queen named Elizabeth, I only did what all teachers do. I stopped and gave a thumbnail lesson about the Virgin Queen and her contributions to Britain's History so I could make my point about the value of time. It was she, who said on her death-bed she would give the entire British Empire she helped build, for one more moment of time.

This is what teachers have always done. I call it side-bar teaching and I spent the best part of my life accumulating bits and pieces of all kinds of knowledge that I love to share. Teachers today, with all of their additional paper work and other responsibilities, do not always have this luxury. Consequently, students arrive in college deficient in background knowledge unless they happen to read a lot and for the most part, these are not the students developmental teachers see.

Today I use cartoons to do consciously, what used to be left to chance yesterday as "side-bar information." I try to keep it light, and short. Admittedly, it is not my intent to offer a course on every subject, and I am not trying to set myself up as an expert in any field. What this information is meant to do is to open a door wide enough to let the sunshine in, and maybe even create an interest in a subject the student will want to read!

By now I hope I have created a receptive frame of mind in my listeners for what follows. You may already be familiar with the following little story, but it is a humorous way to introduce my material:

> A front-page story in a St. Louis newspaper reported an incident in which two men were hospitalized after a fist fight. What happened was that the driver of an automobile stopped for a red light at a main intersection. A man on the sidewalk called out. "Hey, mister, your left front tire is going flat."
>
> The driver got out, looked at the tire, and called to His benefactor, "Thanks for being a Good Samaritan!" Whereupon the pedestrian leapt off the curb and started pounding the driver with his fists, shouting, "You can't call me a dirty name!" The men ended up in the hospital—all because one of them thought that a Samaritan was a dirty word. He lacked the necessary background information.

In this case it is obvious that the background information needed for correct understanding was to the biblical source found in Luke 10: 30-37. The Bible, classical mythology, Shakespeare, History and current literary events including theater, movies and poetry form the bulk of the referents seen in most written material.

The idea of using cartoons to impart background knowledge came as a result of the time I put a Frank and Earnest cartoon on the overhead during class to illustrate some point I was making. I thought the cartoon was hilarious and that it would be an enjoyable break in the lecture for my students. The cartoon showed three little toga-clad characters all going toward a restaurant named "Mom's Diner." One figure says to the another one in front, "Do we always have to eat here, Oedipus?"

I expected some outbursts of laughing to say the least. I was totally unprepared and very surprised when there was only a few little self-conscious giggles, a couple of titters and signs of outright boredom on the faces of many students. That's when it became clear to me! My students for the most part were unable to enjoy the humor of this cartoon because they lacked the necessary information that made it funny!

To make matters even worse, the students who did titter did so because mostly because that's what you are supposed to do when you look at a cartoon—not because they understood the subtle innuendo. So I did my usual sidebar teaching and filled them

in on the Greek tragedy, *Oedipus Rex* and how Freud used it to describe a stage young boys go through.

After that experience, it seemed everywhere I looked; I was seeing cartoons that needed background knowledge for understanding the humor. Before long I was involved in creating teaching units I could use in class. These units proved ideal as material for reading tutors to use in Tarleton's remedial programs. I created the units around different cartoons with the necessary background knowledge as well as reading skill objectives and a way to evaluate the student's progress. I am happy to say that Harcourt Brace Publishers are helping me publish a book of this material for use by Developmental Reading teachers that should be out in the year 2000. Meanwhile, I have included two typical examples at the end of this presentation.

Once I came to the conclusion that increasing background knowledge might increase the likelihood of success in college and on reading tests, two more factors became important.

Just how much background knowledge does an entering Freshman need? How much could we, as teachers, reasonably expect the average student in Developmental classes to have?

I searched on and off for two years and never located any standardized or other test that could be used for this purpose so I made up my own. (See the two examples included at the end of this presentation.) I made up short stories and filled them with deliberate allusions and references I thought would be typical of the kind our students could expect to see. I also included references to topics I didn't expect them to know. I used material from the Bible, classical mythology, Literature, etc., including idioms and adages. I used well turned phrases, quotes and aphorisms whenever I could as well. Each short story has its own compliment of references of at least ten such items.

By having a student take at least three of these tests I am comfortable feeling I at least have a working knowledge of his store of background information. It may not be complete—there is the chance that the references in those three stories just happened to be ones he did not know, or did know, so that the results would be skewed. But, it would not happen often enough to make a difference at this point.

The reason it would not make a noticeable difference now is that I am not trying *to determine a student's intelligence, the only thing being determined is the extent of his* background knowledge. The reasons *why* a student is deficient in background knowledge are not my immediate concern. It is an excellent research topic, but one reserved for another researcher or another time. There are many reasons why a student is deficient--ethnicity, culture, poor teaching or just a plain lack of knowledge or experience. Knowing how much information an average Developmental student can be expected to have, and how much would help him be more successful, will help me and other developmental reading teachers, help him.

In my search for some existing tests to measure the amount of background information my students possess. I did come upon an interesting book designed for an individual to test himself regarding cultural literacy topics. The authors, Diane and Kathy Zahler [5] used the list in Hirsch's appendix and created multiple choice questions around some of the items.

The book is interesting and fun, and would be a big help to Trivia players, but not really useful for Developmental purposes. I do not feel factually isolated multiple choice tests will produce the kind of information I am looking for. I feel the background information I will provide students needs to be couched in contextual material because that is the way the students will be encountering it. Just asking if the students know the answers would be great if we are teaching those different subjects—but our responsibilities as Developmental teachers extend beyond just factual information—we also have to provide the skills needed to get the most out of whatever they read. And, as teachers to never forget, to make readers out of non-readers.

Research has also shown that background information allows readers to experience an idea on two levels at once by linking what they read or hear with what they have read or heard.

Students need a chance to enrich their background knowledge to be able to take advantage of this reading concept. If they are not readers and only read class assignments when they have to, they will not accumulate enough miscellaneous information that will be needed to provide the "hook" for new information to hang on. Somehow, the use of

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[5] Zahler, Diane & Zahler, Kathy A. (1993). *Test Your Cultural Literacy*; MacMillan Publishers, NY.

cartoons to accomplish this task makes it easier for students to remember and apply the information. Knowing that gaining information is what will help them enjoy life more is better motivation than learning for the sake of learning.

To keep the need for background information in perspective and help us remember that the lack of background knowledge is not a phenomenon reserved for college Freshmen I'd like to share the following incidents from the days when I taught First Grade. My students often saluted "one nation, underground, invisible", or offered their allegiance to "one naked individual." For that matter, when I was in Sunday School I thought God's name was Art, and maybe Harold—because I would say, "Our father Art who is in heaven, Harold be they name."

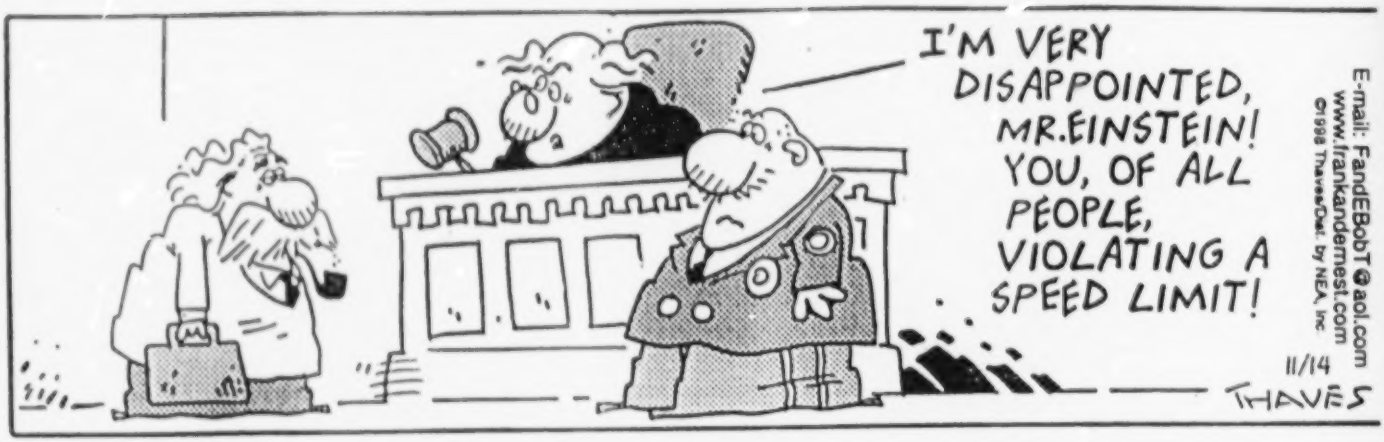
Searching out cartoons and background information has a way of keeping me humble—I am constantly made aware of how much I don't know. At the same time, this activity has a way of keeping me young because I am constantly being placed in the same position as many of my students when I come across a cartoon with allusions that are out of my ken. It allows me to experience, at my student's level, how it feels to need to learn.

I particularly like a quote from one of my favorite books that puts it all in perspective:

> "Gramma said, when you come on
> something good, first thing to do is
> share it with whoever you can find;
> that way, the good spreads out where
> no telling it will go. Which is right!"

from *The Education of Little Tree* by Forrest Carter:

unit Sample



On a Likert Scale from one to ten please rate this cartoon as to how "funny" it is in your opinion.

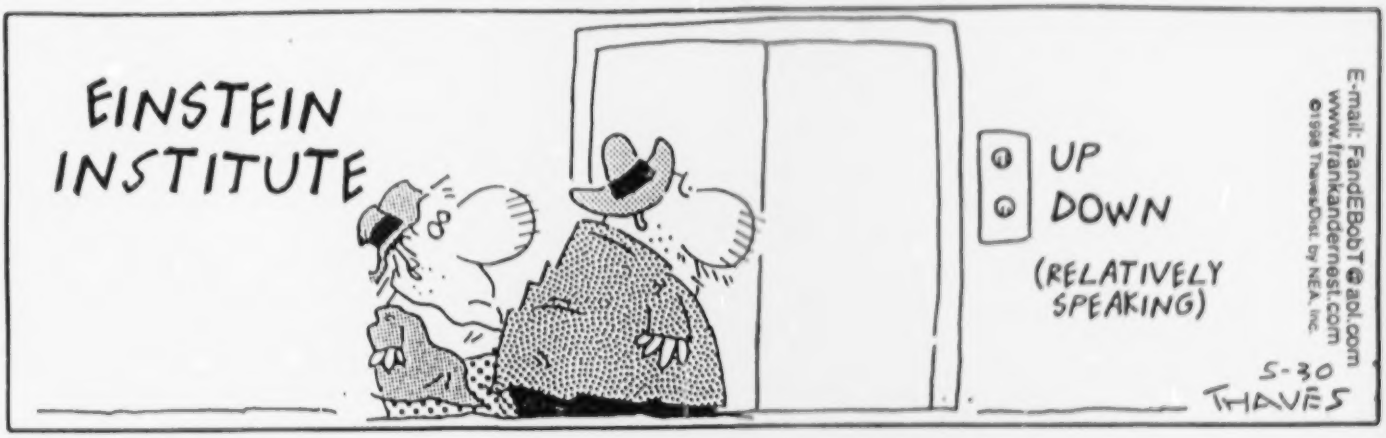
0 1 2 3 4 5 6 7 8 9 10

If your rating is over 5, give a reason why you think it is "funny".

_____

If your rating is under 5, give a reason why you do not find it "funny".

_____



On a Likert Scale from one to ten please rate this cartoon as to how "funny" it is in your opinion.

0 1 2 3 4 5 6 7 8 9 10

If your rating is over 5, give a reason why you think it is "funny".

_____

If your rating is under 5, give a reason why you do not find it "funny".

_____

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Einstein Cartoons

Reading Test Objectives

Note taking skills in college

For those of you who have been criticized for making "messy notes" or engage in "doodling" instead of real note taking, what follows will provide consolation, vindication and information. Keep in mind as you read, that those considered to be the "Great Brains" of art, science, politics, literature, the military, business and education (including Einstein, the subject of these cartoons), have all used notes to help them think.

There are at least four good reasons for improving note taking skills. First, taking notes compensates for deficiencies in our memory. On an average, we forget about 50% of what we learn within a day and about 80% within two weeks. Having access to notes, we need not depend on our imperfect memories. Remember, information improperly learned can be easily forgotten.

Second, notetaking enables us to focus attention on the message, whether it is text we read, or a speaker we listen to. Together, focused attention and the motor movement involved in writing enhance the permanency of learning. Sitting through a long lecture or reading a long textbook assignment, the risk is high that you will tune out or skip over some important information. When your hands are free your mind is free to wander as well. Notetaking supplies the incentive you need to keep your mind on your work.

Third, when we take notes, we encode, or organize and translate the message into our own words. Researchers believe that encoding strengthens memory and increases achievement. Also, notes provide instant feedback. You know right away whether you understand what you're hearing or reading. The evidence is right there on paper.

Fourth, most students are deficient in note-taking skills. According to Kenneth Kiewra and Stephen Benton (1987), students generally record less than 50% of a lecture's main ideas. When you combine the inefficiency of note-taking with the inefficiency of memory, it is not difficult to recognize one area that spells trouble for students.

What is Notetaking?

Taking notes is the process of selecting and recording information contained in a spoken or written message. However, this definition leads to the most common frustration that students have in this regard. Knowing what to record and what to omit. Some clues to help you know what to choose for recording are:

- One of the first places to start whether you're approaching readings or lectures, is with a course syllabus. A typical syllabus provides an

objective or a goal for the course and an overview of the course content. At the beginning of the term, look over the syllabus for topics you already have some familiarity with, and spend a few minutes thinking about them. Consult the syllabus throughout the term for specific reading assignments and lecture topics, and continue building your foundation by surveying your textbook, previewing specific assignments, and preparing for lectures.

- For taking notes in class you need to ask the instructor some things like: to what extent will the lectures parallel the textbook and what percentage of the exam will come from the lectures and the text? *Knowing what to expect helps you decide what to select.*
- Be alert to the instructor's style of teaching and the cue words employed. Many instructors facilitate notetaking by restating the things that are important, using the blackboard and projectors to illustrate, summarizing, and integrating ideas and by the use of body language and pausing to allow time for recording important points.

Notetaking formats

Mastering the best method to record your notes will help you get the most out them and of the experience. Recording your notes is facilitated through preparation as seen above, learning notetaking formats that work and then developing some short cuts.

Quite a bit of research has been done on note-taking, and until recently one system was considered the best for everyone. The formal outline.

The Outline format

Use 8 1/2 x 11 inch loose-leaf paper and write on just one side. (This may seem wasteful, but it's one time when economizing is secondary.) Head each page with a main topic. Then take the time to rule the page as follows:

(1) If the course is one in which lecture and text are closely related, make columns of two inches down the left-hand side for memory clues, three inches in the middle for lecture notes, and three inches on the right side for textbook notes. Leave a two-inch space across the bottom for your own observations and conclusions.

(2) If the course is one where the lectures and the reading are not closely related, use separate pages for class notes and reading notes. Allow two inches at left for clues, five in the middle for notes, and an inch at the right for your own observations. (After while you won't need to draw actual lines.)

Your regular notes belong in the center section taken in whatever form you are used to. The clue column, however is the key to higher grades. As soon as possible after you've written your notes, take the time to read them over--don't study them, just read them. While it is still fresh, see whether you've left out anything important or put down anything incorrectly and make your changes. Then in that left-hand column set down clue words to the topics in your notes. The beauty of clue words is, it is a painless way to remember what you learn.

It is suggested that these notes be applied to both lectures and reading, but your notes on a book should be translated into your own words. It will help you understand and remember better. Clue words should not repeat information, they're the kind of clues you would put on crib sheets. They are fast reminders.

One of the best known systems of this type is the Cornell Note-Taking System developed by Walter Pauk over forty years ago. Many office and school supply stores now sell Cornell-style note paper, but it easy for a student to make his own. (See an example on the following page.)

There is however, another form of outline to use in the case of the rambling instructor. It is commonly called "Mind Mapping" or "Concept Mapping" and lends itself to a looser more creative approach.

Mind Mapping

Mind mapping was developed because research shows that your brain often recalls information in the form of pictures, symbols, sounds, shapes and feelings. Mind mapping provides a visual "Roadmap" for studying, organizing and planning. When your teacher digresses and adds a thought to the lecture, you can easily add it. You are not concerned with catching each word that is said. Instead, you are able to concentrate on the ideas. When you use mind mapping as you read a text, it increases understanding and provides great review notes at the same time. Also, it is fun.

A mind map is a creative pattern of connected ideas that reflects your individuality. It can generate refreshing ideas and easy recall and it's easier than formal methods because it works with both the right and left hemispheres of your brain.

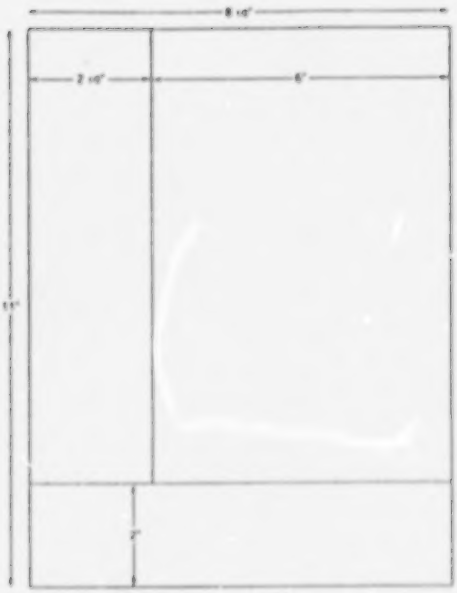
Tips to use when mapping:

- Turn your paper sideways and print the topic in the center. Enclose it in a circle or square etc.
- Add branches for each key point or main idea
- Use a different color for each branch (if you like)
- Write one word or a few related words on a line

- Use pictures, symbols and abbreviations
- Write legibly, using UPPER CASE letters
- Make important ideas larger
- Personalize your mind map with things that relate to you
- Underline words. Use bold letters
- Be creative and outrageous in your design
- Use random shapes
- Add detail to each branch. (See an example on the following page.)

Some hints for taking better notes no matter which method you choose are:

- Decide whether it is faster for you to print or write, then be consistent.
- Reduce words to abbreviations and symbols.
    1. Substitute prefixes contained in the course schedules for discipline names. (I.e. BIO, CHM, BUS etc.)
    2. Learn the meaning of key Latin abbreviations: e.g. for *for example*, i.e. for *that is*, viz for *namely* etc.
    3. Use only the first one or two syllables of a word (for example, *esp* for *especially*, *illus* for *illustration*, etc.
    4. Omit prepositions and articles if their omission does not change the meaning of the statement.
    5. Omit vowels (bk for book, pnt for point, or crcl for circle.)
    6. Substitute symbols for words: = for equal, w/ for with etc.
    7. Use arrows to symbolize change and movement.
    8. Keep a list of the abbreviations you use handy so you don't forget what they mean.



The Cornell Note Sheet

To use the Cornell System, the student writes notes in the wide (6") column. To study from the notes, the student writes questions in the narrow column and a summary in the space at the bottom of the note sheet.

How do psychologists account for remembering?	Three kinds of memory - Fact that we retain information means that some change was made in the brain - Change called "memory trace" - "Trace" probably a molecular arrangement similar to molecular changes in a magnetic recording tape
What's a "memory trace"?	
What are the three memory systems?	Three memory systems: sensory, short term, long term
How long does sensory memory retain information?	- Sensory (lasts one second) E.g. words or images sent to brain by sight (visual image) start to disintegrate within a few tenths of a second (gone in one full second, unless quickly transferred to S-T memory by verbal repetition
How is information transferred to STM?	- Short term memory (STM) (lasts 30 seconds) • Experiments show a syllable of 3 letters remembered 90% of the time after 3 seconds, totally forgotten end of 30 seconds • S-T memory-limited capacity-holds average of 7 items • More than 7 items, petterson, some in note room • To hold items in STM, must rehearse -- must hear sound of words, externally or externally
What are the retention times of STM?	
What's the capacity of the STM?	
How to hold information in STM?	
What are the retention times of LTM?	- Long term memory (LTM) (lasts a lifetime or short time) • Transfer fact or idea by (1) Associating information already in LTM (2) Organizing information into meaningful units (3) Understanding by comparing & making relationships (4) Translating - fit pieces in like in a jigsaw puzzle (5) Reorganizing combing new info into a new unit (6) Rehearsing about to keep memory trace strong
What are the six ways to transfer information from STM to LTM?	
	Three kinds of memory systems are sensory, which retains information for about one second, short term which retains for a maximum of thirty seconds, and long term which varies from a lifetime of retention to a relatively short time. The six ways (activities) to transfer information to the long term memory are associating, organizing, understanding, translating, reorganizing and rehearsing.

A Cornell Note Sheet with Jottings in the Cue Column and Summary Area

MIND MAP SYMBOLS

Use association ⟨ ◯ ◯ ⟩ to connect ideas together. Also, make ideas different *and out of the ordinary* so that they stand out.

- show relationships
- use color
- make it personal
- key words
- use arrows
- abbreviate abv.
- shapes & sized
- <<< Action >>>

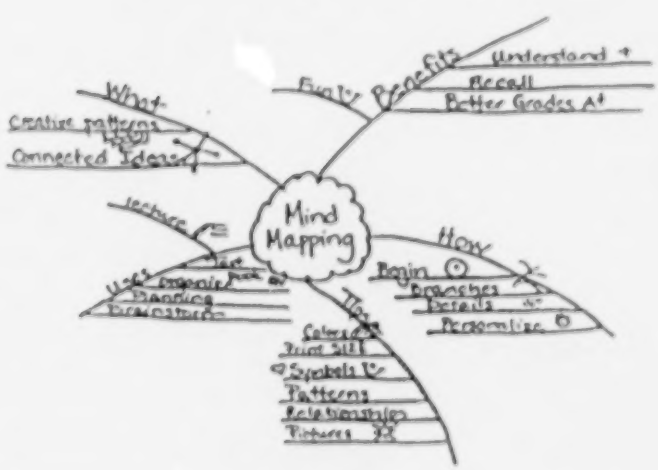
$ = money, wealth, dollars

C = see = happy

B4 = before = sad

< - > = more/less than

EZ = easy



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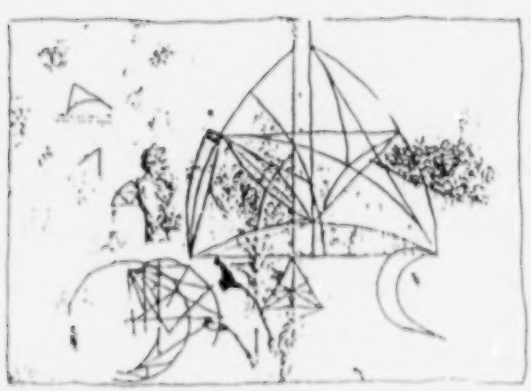
EINSTEIN

Background Information:

Over the years people have assumed that the "Great Brains" of this century achieved their greatness by having and using a wider range of mental skills than everyone else. There is evidence to support this assumption in examining two of the notes made by "Great Brains". It shows they did indeed use more of their natural ability and intuitively recognized the need for using the "whole brain."

In the following illustrations from Tony Buzan's *The Mind Map Book* both Picasso (Great Brain Note 1) and Leonardo da Vinci (Great Brain Note 2) demonstrate this point. They used words, symbols, sequence, listing, linearity, analysis, association, visual rhythm, numbers, imagery, dimension and gestalt--complete minds expressing themselves completely.

Great Brain Note 1



Great Brain Note 2

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In the late 1960s Professor Roger Sperry of California, who was awarded the Nobel Prize for his research showing that the two sides, or hemispheres, of the brain (cortex) tended to divide the major intellectual functions between them. The right hemisphere appeared to be dominant in rhythm, spatial awareness, gestalt (wholeness), imagination, day dreaming, color and dimension. The left hemisphere appeared dominant in a different but equally powerful range of mental skills: words, logic, numbers, sequence, linearity, analysis and lists. Several other investigations seemed to confirm these findings.

But, although each hemisphere is dominant in certain activities, they are not exclusive. Both hemispheres are basically skilled in *all* areas, and the mental skills identified by Roger Sperry are actually distributed throughout the cortex.

The current fashion for labeling people either left or right-side dominant is counter-productive. To say we are "right brain" or "left brain" people, limits our ability to develop new strategies. The only barrier to the expression and application of all our mental skills is our knowledge of how to access them. This is what ultimately separates us from the "Great Brains" of the world, they have mastered this ability.

Subsequent researches showed that when people were encouraged to develop a mental area they had previously considered weak, this development, rather than detracting from other areas, seemed to produce a synergetic effect in which all areas of mental performance improved.

A professor Zaidel continued Sperry's work at the University of California with some rather startling results. He discovered that each hemisphere contains many more of the "other side's" abilities than had been previously thought, and that each hemisphere also is capable of a much wider and much more subtle range of mental activities.

Tony Buzan said in *Use Both Sides of Your Brain* (1991):

> "Einstein and other great scientists seemed to be predominantly 'left-cortex' dominant, while Picasso, Cezanne and other great artists and musicians appeared to be 'right-cortex' dominant.
>
> A more thorough investigation unearthed some fascinating truths: Einstein failed French at school and numbered among his activities violin play, art, sailing, and imagination games! To his imagination games Einstein gave credit for many o his more significant scientific insights. While daydreaming on a hill one summer day, he imagined riding sunbeams to the far extremities of the Universe, and upon finding himself returned, 'illogically' to the surface of the sun, he realized that the Universe must indeed be curved, and that his previous 'logical' training was incomplete. The numbers, equations and words he wrapped around this new image

gave us the Theory of Relativity--a left and right synthesis."

Whenever we see the name Einstein we think of a great thinker, yet his ideas came to him as pictures and images, after which he put them into words and mathematical symbols. There must be thousands of people who had similar insights but no ability to express their realizations. What made Einstein so great was the fact that he was also a good rational thinker.

The combined use of both hemispheres is always present in the creative process, whether it is science or art. Leonardo da Vinci was as much scientist as artist, an engineer and architect as well as sculptor and painter. If we were to look at the notes of many other artists and great thinkers they would reveal concise analytic thinking linked with deep insight and aesthetic appreciation--as well as note-taking skill to record their thoughts.

The conclusion to be drawn from this information is that each one of us is potentially both exceptionally scientific and exceptionally artistic. If we are at the moment lopsided it is not because of an inherent disability, but simply because one side of our brain has not been given as much opportunity to develop as the other.

Beyond Mere Knowledge

"The most beautiful experience we can have is the mysterious. It is the fundamental emotion which stands at the cradle of true art and true science. Whoever does not know it and can no longer wonder, no longer marvel, is as good as dead. . . . A knowledge of the existence of something we cannot penetrate, our perceptions of the profoundest reason and the most radiant beauty, which only in their most primitive forms are accessible to our minds—it is this knowledge and this emotion that constitute true religiosity."

—Albert Einstein

Background Information Continued

EINSTEIN

The name "Einstein" is the one name, that when uttered anywhere in the world, denotes intelligence. The name has become part of our language with phrases like "It doesn't take an Einstein." "A poor man's Einstein." And, "He's no Einstein!" illustrating intelligence or the lack of it. But how many of us can explain in detail why this is so?

He achieved his eminence mainly through the field of physics. In fact, most of the scientific touchstones of the modern age--the Bomb, space travel, electronics, and quantum physics--all have his imprint. In fact, so many of the break-through discoveries Einstein made have become "common knowledge" that it is forgotten just how amazing they were at the time.

Forinstance, one of his earliest papers offered the startling view that light comes as much in particles as in waves. It was this discovery that set the stage for a new view of energy. Another of his papers discovered the microscopic motion of molecules in a liquid--making it possible to calculate their exact size and incidentally proving their very reality (many scientists, as the century began, still doubted that atoms existed). A third paper from this time modified the theory of space and time. It was his theory of Relativity.

It was Einstein who saw that space and time were not two different entities. Or as he put it, "apples and oranges". He saw they were mates, joined and inseparable and "only a kind of union of the two will preserve an independent reality." Now everyone takes this revolutionary thought for granted, we even call it "Space-time". Likewise energy and matter: two faces of one coin. $E=mc^2$, as Einstein announced.

Newspapers and popular magazines went wild. More than 100 books on relativity appeared within a year. The very name relativity fueled the fervor. Everything had to be looked at relative to everything else because humanity was expanding its vision rapidly outward to planets, stars and galaxies.

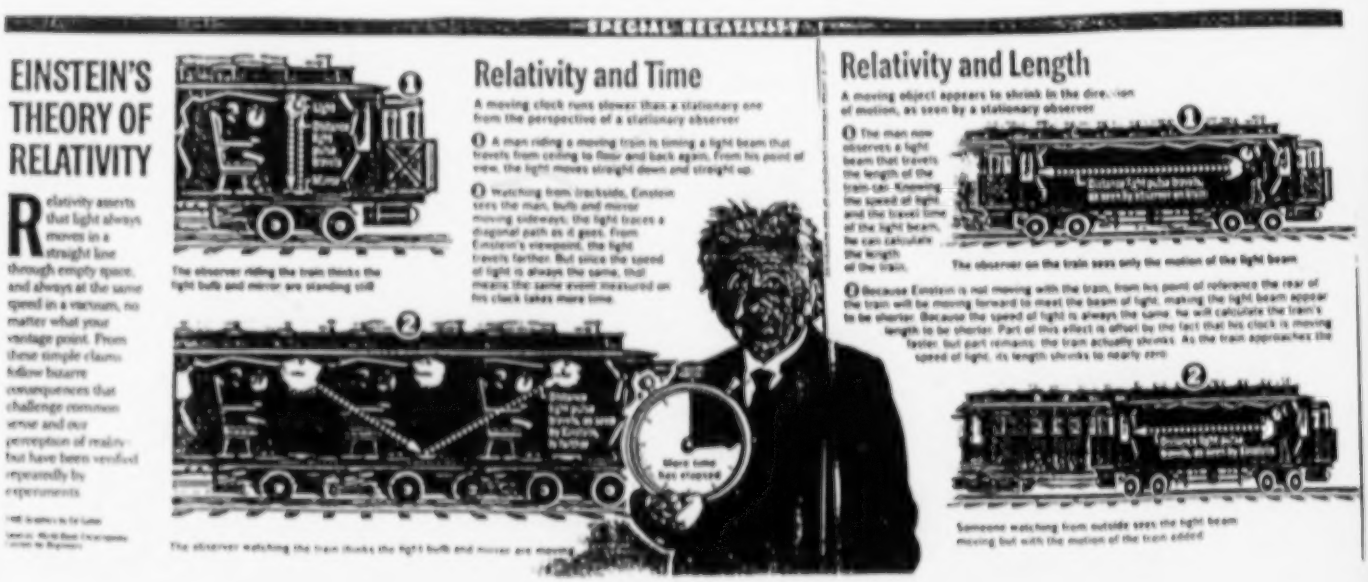
From the time of the publication of those three papers in 1919 until today, Einstein is regarded as the world's most famous scientist. He did not invent the kind of thought experiment in which he visualized his ideas and later put his ideas into words and mathematical symbols, but he raised this ability to a high art. He brought recognition to the combined use of both hemispheres of the brain.

Many legends have arisen with regard to this Great Brain. Some true, others unproven. One popular belief is that he flunked math (not true). That he opened a book and found an uncashed $1,500 check he had left as a bookmark (maybe). That he was careless about everyday affairs and about socks, collars, slippers and that he couldn't make change for the bus or remember his address, (probably).

Einstein never achieved what he considered a complete, unified field theory and found it intolerable that "the idea that subatomic particles would not obey the laws of cause and effect, or that the act of observing one particle could instantly determine the nature of another halfway across the universe."

In an article that appeared in a special edition of *Time Magazine*, March 29, 1999 titled "The Century's Greatest Minds" the editors of *Time* made this observation: "And after the rest of Einstein had been cremated, his brain remained, soaking for decades in a jar of formaldehyde belonging to Dr. Thomas Harvey, the Princeton Hospital pathologist. No one had bothered to dissect the brain of Freud, Stravinsky or Joyce, but in the 1980s, bits of Einsteinian gray matter were making the rounds of certain neurobiologists, who thus learned. . .absolutely nothing! It was just a brain--the brain that dreamed a plastic fourth dimension, that banished the ether, that released the pins binding us to absolute space and time, that refused to believe God played dice, that finally declared itself 'satisfied' with the mystery of life's eternity and with a knowledge, a sense, of the marvelous structure of existence.' Physics was freer, and we too are freer, in the Einstein universe which is where we live."

The following pictograph from the *Time* article explains the Theory of Relativity for those among us that have the abilities to understand it. It is an excellent illustration of the need for both hemispheres of the brain to be employed, not just for creating the theory, but also for understanding it.


SPECIAL RELATIVITY
EINSTEIN'S THEORY OF RELATIVITY
Relativity asserts that light always moves in a straight line through empty space, and always at the same speed in a vacuum, no matter what your vantage point. From these simple claims follow bizarre consequences that challenge common sense and our perception of reality but have been verified repeatedly by experiments.
Relativity and Time
A moving clock runs slower than a stationary one from the perspective of a stationary observer
1 A man riding a moving train is timing a light beam that travels from ceiling to floor and back again. From his point of view, the light moves straight down and straight up.
2 Watching from trackside, Einstein sees the man, bulb and mirror moving sideways; the light traces a diagonal path as it goes. From Einstein's viewpoint, the light travels farther. But since the speed of light is always the same, that means the same event measured on his clock takes more time.
The observer riding the train thinks the light bulb and mirror are standing still
The observer watching the train thinks the light bulb and mirror are moving
More time has elapsed
Relativity and Length
A moving object appears to shrink in the direction of motion, as seen by a stationary observer
1 The man now observes a light beam that travels the length of the train car. Knowing the speed of light and the travel time of the light beam, he can calculate the length of the train.
The observer on the train sees only the motion of the light beam
2 Because Einstein is not moving with the train, from his point of reference the rear of the train will be moving forward to meet the beam of light, making the light beam appear to be shorter. Because the speed of light is always the same, he will calculate the train's length to be shorter. Part of this effect is offset by the fact that his clock is moving faster, but part remains; the train actually shrinks. As the train approaches the speed of light, its length shrinks to nearly zero
Someone watching from outside sees the light beam moving but with the motion of the train added

Atoms were not Einstein's only concern

On the anniversary of Albert Einstein's 120th birthday, March 12th, an article appeared in the Fort Worth Star Telegram written by Amitabh Pal, editor of the Progressive Media Project in Madison, Wisconsin that shows another side of this man that is often overlooked. He was a man who was actively engaged throughout his life in trying to make the world a more just, peaceful and humane place.

Mr. Pal points out a little known fact that Einstein wrote a letter to President Franklin D. Roosevelt in 1939, before the onset of America's entry into World War II encouraging the development of an atomic bomb. It was his letter that was the instigation of the establishment of the Manhattan Project which built the atom bomb. But he later said he would not have made that recommendation if he had known the Germans would not succeed in building one. The rest of his life was spent opposing war. He said, "To my mind, to kill in a war is not a whit better than to commit ordinary murder." And despite his role in developing atomic weapons, he vigorously opposed their use.

Einstein was not hesitant to express himself on issues such as McCarthyism and race relations in the United States and he was a strong critic of capitalism and was not averse to describing himself as a socialist.

Mr. Pal said, "Not surprisingly, his views made him unpopular in some quarters in his country of origin, Germany, and in his adodptive nation, the United States. When Einstein applied for a visa in 1932 to work at Princeton University, some conservatives asked the State Department to refuse him the visa. During the McCarthy era, certain conservatives demanded that he be stripped of his U.S. citizenship (which he acquired in 1940) and deported."

"Einstein was more than perhaps the most brilliant scientist of all times. He was also passionately concerned about improving the lot of his fellow human beings. He was, in every sense of the phrase, a role model for future generations."

Einstein on religion and science

After Einstein retired in 1945 he wrote about his own philosophy in a piece titled *Ideas and Opinions*, edited by Otto Nathan and Heinz Norden after his death, in which he said: ". . .I maintain that the cosmic religious feeling is the strongest and noblest motive for scientific research. . . . Those whose acquaintance with scientific research is derived chiefly from its practical results easily develop a completely false notion of the mentality of the men who, surrounded by a skeptical world, have shown the way to kindred spirits scattered wide through the world and the centuries. . . the serious scientific workers are the only profoundly religious people."

Activities to accompany Einstein

1. Which one of the following is not a good reason to take notes:
    a. When we take notes we encode and organize the messages which strengthens our memories.
    b. When we take notes it compensates for not having a good memory.
    c. When we take notes we can compare with fellow students to see if we are on the right track.
    d. When we take notes it facilitates our ability to focus on the message.

2. Knowing which note-taking format to use depends upon which of the following factors?
    a. The instructor's style of teaching and the cue words employed.
    b. Knowing what percentage of the exam will come from lectures and what percentage will come from the book.
    c. Being familiar with the syllabus.
    d. All of the above.
    e. None of the above.

3. If someone referred to you as being "right brain dominant" it would imply that you
    a. had a good imagination and were creative
    b. would be a good bookkeeper
    c. should become a scientist
    d. would make a great salesman

4. The "Great Brains" of the world have mastered the ability to
    a. overcome their short-comings by mastering the things they were weak in
    b. use both hemispheres of their brains
    c. take excellent notes
    d. visualize his thoughts.

5. Einstein was considered a great brain because
    a. his brain was different from Freud, Stravinsky or other great thinkers.
    b. he could concentrate on the things that were important in science and did not concern himself with "everyday things" like remembering his address.
    c. he spent most of his life trying to make the world a more peaceful place

d. most of the scientific breakthroughs we know today came about because of his thinking.

6. When does a moving clock run slower than a stationary one?
   a. When the person observing it is standing still.
   b. When the person observing it is keeping pace with it.
   c. When the person is holding it.
   d. When the clock reaches the destination before the person observing it.

7. Because of his association with the production of the atomic bomb few people knew that Einstein was
   a. a concert violinist
   b. a deeply religious man
   c. engaged in promoting peace throughout the world
   d. an advocate of using the atomic bomb to eliminate racism wherever it flourished

8. On an average, we forget
   a. 20% of whatever we hear, and 80 % of whatever we learn
   b. 50% of whatever we learn in a week
   c. 80% of whatever we learn in a day, and 20% of what we learn in two weeks.
   d. 50% of whatever we learn in a day, and 80% within two weeks.

9. A definition of Note-taking is
   a. A method of recording what you hear in lectures.
   b. A way to summarize what you hear and read.
   c. A process of selecting and recording information.
   d. Deciding what needs to be remembered in a spoken or written message.

10. The note-taking method which best utilizes both the right and the left hemispheres of your brain is
   a. The Cornell Note-taking method.
   b. The formal outline method.
   c. The separate pages outline format used for cases when lectures and reading are not closely related
   d. Mind mapping.

VANITY OF VANITIES; ALL IS VANITY

MAY

1 The coffee mug hit the table with a sharp bang. Ecru liquid sloshed over the sides, joining the puddles already on the surface of the scarred table. The effect was the same as jungle camouflage on GI issue. The five friends were once again engaged in voicing their opinions as they challenged and dared each other to respond on a higher level of thinking with each well thought-out barb.

2 The remark that accompanied the mug-banging was designed to be a culminating statement to the argument that had been raging most of the evening. Elliott spoke deliberately, slowly emphasizing each word in his deep baritone,

3 *"If you have not been hurt, if you have not experienced pain or loss, if you have never yearned for an unattainable goal or experienced any of it with true passion, you should delay writing until you have."*

4 It was so out of character for Elliott to speak in this fashion that it caught everyone off guard and silence ensued. His words created a kind of vacuum in which they echoed as though being spoken in a tunnel. Aware that a change had taken place, Elliott attempted to restore the naturalness and camaraderie that had been the norm before his words had been uttered.

5 "Surely *you* know what I mean Veronica. Remember the piece you wrote about the conditions in the state-run half-way houses at the time you and Jimmy were breaking up? You were certainly hurting then and that is one of the best things you have written. That piece has been published and even cited several times."

6 Veronica, her sleek dark hair hiding half of her face, self-consciously joked, "What you're really saying is, I am not getting published now because Jim and I ironed out our difficulties and got back together?"

7 Turning to Jim who was sitting close beside her she mockingly said, " Get out of my life Jim! Go! Have an affair with Melanie so I can hurt. I need to get my novel published. I need the dough!" Her laugh was just a little forced as she pretended to hit him.

8 The self-conscious laughter of the other four would-be authors had the same insincere sound as the losers at an Oscar Award Ceremony.

9 Josh, nervously tracing designs in the moisture on the table and avoiding eye contact with his friends by studiously following his finger's path, said, "Is this all supposed to mean I will never write anything worthwhile because I'm solvent, happy in my non-relationships and content with my life?"

10 Melanie, always quick to come to Josh's defense, indignation making her brown curls shake said, "Of course not! There is a lot to be said for upbeat material. The *Chicken Soup* books are selling like hot-cakes. Movies like '*When Harry Met Sally*' and '*Sleepless in Seattle*' are very popular. The general public is seeking literature with happy endings and if we have to suffer in order to write, where will the happy endings originate from? We may be so mired in our own miseries we wouldn't know happiness if it bit us. I, for one, could do with a little less doom and gloom in my life. We should put a skirt on Elliott and call him Cassandra."

11 Elliott grinned and said, "You're right Melanie, nobody needs to have 'doom and gloom' added to his life. But do you remember how G.Stanley Hall characterized adolescence? He said it was a period of 'sturm und drang' and often lasted well into adulthood. How else do you explain the phenomenal success of the movie '*Titanic*'? That was no happy ending--either for the boat or the lovers."

12 Jim, who had been quietly contemplating the others during these interchanges, raised his head and said in his gentle way, "You can't be right Elliott. Writing involves the imagination, the urge to create something from nothing using vocabulary. The key words here are 'create' and 'nothing'. What you are saying is that the creation doesn't come from 'nothing' it is dependent on the amount of life experience we bring to the task. And that life experience has to be traumatic, it can't just be the result of contentment or ease. Am I right?"

13 Elliott, grimacing a bit, his handsome features disappearing behind his mug as he swallowed the last of his beer said, "Yeah--that's about it Jim, although I must admit that being constantly behind in my rent, and having to sell my car to eat, is relative suffering and may not qualify me for the suffering and pain I was talking about. I don't know. I just know that each and every one of us has superior talents, we can write, but with the exception of Veronica, nobody has had their book accepted for publication. There has to be some reason and mine is as good as any. Right Josh?"

14 Josh's eyes were alight with fervor. His smooth blond hair was standing on end as his fingers repeatedly combed it. The words tumbled out of his mouth as if they were borne on the tide to which Julius Caesar fell heir.

15 "I have an idea! Let's consciously create trauma or pain or whatever Elliott calls it for each of us. At the end of six months if none of us is a published author we will know that pain, or hurting or whatever, is not a given, and that maybe- -maybe we just don't have it as authors. It would be a sign to get on with our lives while we are still young enough to choose another path."

16 Melanie said, "How do we create pain or hurt for ourselves, Josh?"

17 "We take away that thing or essence, the sine qua non, that will cause the greatest hurt for each of us. It is temporary of course. At the end of the trial period, everything will go back to the way it was. With the exception that if Elliott is right, we will all be published authors!"

18 Jim, his athlete's body and ebony skin making him seem like a multicultural icon representing American youth , said, "Hey, let's give it a whirl. I'd like to catch up with Veronica and if this will do it I'm willing to try. Count me in."

19 "Leave me out!" Veronica beseeched. "I've been hurt and I've been published. I really don't want to go that way again. Please!"

20 Her plea had everyone's approval with the understanding that Jim's hurt would have to come from another source beside splitting up the two of them.

NOVEMBER

21 Elliott was speaking, *"If you have not been hurt, if you have not experienced pain or loss, if you have never yearned for an unattainable goal or experienced any of it with true passion, you should delay writing until you have."*

22 "I can't believe I said those words!" Elliott proclaimed. "I was a cheat and a liar when I said them, and I am still a cheat and a liar."

23 Shocked silence filled the room. Disbelief registered on each countenance as the four friends turned to face him.

24 "For whatever its worth here is the truth." Elliott had been speaking with his eyes screwed shut, as though in pain, but now he turned his face to the astonished group, his eyes steady, his gaze riveting theirs.

25 "For the last six months I've been living with the sword of Damocles hanging over my head. I was already as poor as I could be, I was not involved with any person, so I secretly thought there was nothing anybody could take from me. I *knew* already that deprivation, hardship and hurt were not helping me write. My deprivations were stopping me from writing! I could see all of you, who had everything I didn't, becoming successful writers and I wanted to even the playing field when I planted the idea for this experiment in Josh's ears."

26 "Hey, it sounded like a great experiment, Elliott." Josh assured him. "Who among us knew that we were invoking God's wrath and that He was already beginning the deprivation process while we were talking last May?"

27 "Deprivation process! There's a great new way to say people you love have died!" Melanie blurted, her eyes brimming with tears as she threw copies of newspaper articles depicting the crash of a 747 last May, on the table.

28 "I am a published author--that part is true. I wrote my parent's obituaries but that is all I've written." she sobbed.

29 Josh took her in his arms, and gently tried to soothe her by saying, "The death of your parents did bring us together, Melanie. I can't help feeling grateful for that. And losing all the material things my family and I possessed was pretty hard to take at first , too, remember? But I did get a contract from Scribner & Sons for my book as a result of the 'Deprivation process' you're bemoaning. Scribner's even seems to think it will be a best-seller. I could never have done it without your help. So indirectly, you are a successful, published writer."

30 Josh went on, "My folks have gone back to their roots as farmers. Mom's herbs are increasing in popularity and Dad's heart condition has improved from all the healthy living they're into now that the business and the big house are gone. Elliott, I feel the experiment, whether there was any connection between it and the events that transpired or not, was a gift. A gift, because it gave me a way to understand what was really important."

31 A silence settled on the emotionally charged group as they turned in unison to the wheel chair and its occupant. There was an electrical charge of knowledge leaping between the four writers--Elliott would receive redemption or condemnation by what Jim would say next.

32 Jim sat relaxed, the once broad shoulders hunched, the ebony skin that used to ripple and gleam with health and vigor now dull and still. Veronica, stood next to him her hand resting lightly on his arm as he spoke.

33 "I never had much money to worry about, and Veronica and I had reached a beautiful understanding that she ensured would not be taken from us when this all started, so I was a willing participant. What could be taken from me?"

34 "Now it's pretty clear what could be taken from me. I lost my ability to walk or do any of the things that made me who I was. I was an athlete, I excelled on the football field, and I had won Veronica's love because of my physical prowess. Or so I thought."

35 "Thank you Elliott and the experiment you feel you instigated. Like Josh, I was given the opportunity to find out that I was more than an athlete. Veronica didn't just love me for my athletic abilities--we can laugh about that together now--she loves ME! And, the series I have been commissioned to write for *Sports Illustrated* has generated many other offers for my work."

36 Melanie chimed in, "And there is one more thing to be grateful for. We cannot return anything to the way it was--what an ego trip that was, to think we could."

37 As each story unfolded, Elliott became more withdrawn. Instead of his friends experiencing the dispair he had felt and that kept him from being successful as a writer, they gloried in their misfortune! They used it to succeed! It was positively obscene! Or were they functioning on purpose as Job's comforter?

38 Elliott finally spoke. "It turns out that I am the only one that has not succeeded as a writer--and I was the one that experienced deprivation first. But you can't deny that my thesis is still valid. When confronted by pain and loss you did succeed as writers! The puzzle is, why did I not succeed as you all did as a result of your losses?"

39 Veronica reasoned softly, "Maybe we succeeded in spite of, and not because of loss."

40 Jim, in complete accord with Veronica, said "Remember, 'The race is not to the swift or the strong.' We do not control the fates. We *are* given the chance at every turn to be the best we can be with whatever we are given to work with. Good fortune or bad fortune, its what we do with it that counts."

Vanity of Vanities: All is Vanity: Assessment

1. When Melanie suggested putting a skirt on Elliott and calling him "Cassandra" she was implying that he was acting:

   a. in a feminine manner
   b. like he was not himself
   c. in a gloomy manner
   d. crazily

2. What characteristic do teenagers exhibit that is typical of "sturm und drang?"

   a. puberty
   b. wide swings in mood and emotion
   c. acne
   d. growth spurts

3. How are Josh's words like the tide to which Julius Caesar fell heir?

   a. They were like a swiftly flowing river.
   b. They were particularly forceful and convincing.
   c. They indicated the need to act immediately.
   d. They indicated an historical significance.

4. What is the "sine qua non" that is being referred to?

   a. Individually important things.
   b. Things we are better off without.
   c. Unattainable goals.
   d. Personal valuable attributes.

5. "The sword of Damocles" hanging over Elliott's head meant

   a. Things would be taking a turn for the better.
   b. Time was running out for him to accomplish his goals.
   c. Impending doom.
   d. He did not have any talent.

6. What is the function of a "Job's comforter?"

   a. Someone who makes light of serious situations.
   b. Someone who can restore good feelings after a disaster.
   c. Someone who can furnish economic assistance.
   d. Someone who tries to help verbally, but only makes it worse.

7. Camaraderie means

   a. forgiveness
   b. friendship
   c. romance
   d. trust

8. What does the "Vanity" in the title refer to in this story?

   a. The belief that they are all talented.
   b. The belief that they could manipulate fate to their advantage.
   c. The belief that human beings are powerless to change what is.
   d. The belief that vanity is a trait to be sought after.

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9. If the race is not won by the swift or the strong, who does win?

a. The most beautiful.
b. The smartest.
c. The richest.
d. Everybody has a chance.

10. When Elliott stated he wanted to "even the playing field," what he was saying was:

a. he wanted to eliminate the competition.
b. he wanted a chance to become as economically advantaged as they were.
c. he wanted to make all the factors equal.
d. he wanted to gain publicity and sympathy.

Background Assessment Instrument
Sample

COMEUPPANCE

come-up-pance also **come-up-ance** (kum up´əns) n. *Informal*. A punishment or retribution that one deserves; one's just deserts.

There are many people, good persons all, who truly believe that there is a Yin and Yang at work in the universe rewarding good deeds and punishing the evil deeds. These beliefs have led people to a conviction that if something good is done *by* us we will ultimately be rewarded by something good being done *to* us. The similar philosophies of "as ye sow, so shall ye reap." and "what goes around, comes around" are often used to exemplify the reverse as well. If we do evil things, very bad things will be done to us.

Sometimes this conviction is innate, it becomes part of our psyches without any conscious effort being expended to achieve it. Like Candide, we can take no credit for what befalls us. Sometimes the conviction is the result of religious training or moralistic design. Sometimes it is the result of wisdom gained through living and interacting with other individuals.

Or, as some believe, by making good behavior more attractive than bad, the upper classes have consciously created a method to keep the masses in line. A device, created by the influential, to protect the ruling classes who have the most to lose from the "bad" behavior of the lower classes.

But is the concept of just rewards true? Does history support this concept as being the best way for people, countries and nations to live? Does every miscreant get his "comeuppance?" Does every "do-gooder" receive good in return? Or, as it is often stated, is the good deed itself the reward? Use the following examples to help you decide for yourself.

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A.

Mary and John fell in love. John loved Mary for her merry laugh, her dainty figure and soft blonde hair. He also loved the way she put his needs before her own. Mary loved John for his thick, brown hair and trim muscular physique. She also loved the way he appreciated her opinions and listened to her concerns. They married.

Mary was a "good" wife. She cooked only the foods he liked; she wore only what he liked her to wear; the home was furnished with the items he chose. She only went where it would please him to have her go, and did what he wanted her to do. She continued

to love him although his thick brown hair had thinned and faded to gray and his trim build was only a memory.

At the same time John felt shackled and smothered by what he termed a faustian bargain made the day he said "I do." She never had a thought of her own. She always cooked the same dishes, wore the same clothes, and was constantly fawning over him. Didn't she realize when she laughed she sounded like a hyena? She had become so fat they had to get twin beds so he could sleep! And why on earth didn't she realize that her hair-do would make Medusa cringe?

Tonight he would tell her he wanted a divorce so he could marry Lois.

B.

After World War I, Germany was forced to experience humiliating, economically devastating terms as a result of the Treaty of Versailles--retribution for the part Germany played in instigating the "War to end all wars." Somebody had to "suffer the slings and arrows of outrageous fortune" and it would not be the winners of this conflict. This tragic document dictated that Germany accept full guilt for the war, cede huge sections of territory and disarm almost completely.

The Allies hoped, by weakening Germany, the Teutons could never again threaten Europe's peace. In a way, the treaty was an avatar of many such concepts proliferating in Europe since before the Middle Ages. The treaty was in effect doing to Germany what Germany had attempted to do to the rest of Europe. However, these acts so destabilized Germany that the nation was ripe for the rise of Adolph Hitler and the advent of World War II.

C.

They were a close and loving family. There was never enough money to do all the things the parents would have liked to do for the four children, but all their immediate needs were met and they kept the wolf from the door. There was always food on the table, although they never went out to eat or had snacks between meals. They had clean, serviceable clothes, neatly mended, which were handed down between them. Sometimes the children felt alienated at school and quietly resentful because they did not have the kind of clothes their peers did or the money for hanging out at the mall and going to movies.

Dad's work was seasonal which made it necessary for him to supplement his income by mending small appliances. Mom worked as a waitress in a busy restaurant and

Neither parent ever complained of the heavy work load. They were proud that they could maintain the standard of living they had achieved for their family.

Time passed, and the children left home. They each became successful in their own ways. They all had excellent incomes, good reputations, beautiful homes, and wonderful futures. They even found time at least once a year to visit Mom and Dad who were now ill and unable to work, struggling to make ends meet on Social Security. These children, now grown, adopted Marie Antoinette's philosophy of "Let them eat cake!" as their own. When they visited they rarely stayed long. The rooms their parents lived in smelled bad, and it was often dirty. They more often sent flowers on birthdays and sent gifts of food on holidays. Once they went together on the purchase of a TV for the incapacitated pair. This act allowed them all to feel extremely generous; after all their parents had never been there for them, they were always working!

Comeuppance Assessment

1. The Yin and Yang in the first paragraph represents
   a. the names of two warring tribes that found a way to live together
   b. the Yin as being comparable to oil, and the Yang being comparable to water
   c. the Yin which represents good and the Yang which represents evil
   d. the Yin as the passive, negative force, and the yang as the active, positive force.

2. Another way to say "what goes around comes around" would be:
   a. Poetic justice has been dealt unfairly.
   b. If you don't take care of your problems today, they will multiply by tomorrow.
   c. One hand washes the other in muddy water.
   d. The chickens have come home to roost.

3. Candide was a character of Voltaire's creation who believed
   a. Everything that happens, happens for the best.
   b. There is no God and chaos reigns in the universe.
   c. Human beings are like blank slates and we learn from experience.
   d. If something good happens, something bad will follow.

4. What is a faustian bargain?
   a. An opportunity to make a good deal and save money.
   b. A bargain made with the devil for a person's soul in exchange for fame or fortune.
   c. A bargain made when you don't have the means to cover the debt.
   d. A bargain you can't get out of.

5. Medusa was:
   a. A famous hair dresser.
   b. A popular singer famous for her weird hairdos.
   c. A figure in Greek mythology who had snakes instead of hair on her head.
   d. A figure in Greek mythology who cut off the heads of female rivals who had better hair than she did.

6. What suffering did the "slings and arrows" refer to in the Treaty of Versailles that the Allies and Germany signed?

a. The bad press that resulted from so many soldiers dying in WWI.
b. The reconstruction that became necessary after the war.
c. The humiliation and guilt for causing the war.
d. The loss of the tourist trade they had depended upon.

7. An "avatar" is
a. A treaty of any kind.
b. A dictionary defining the terms and words used in making a treaty.
c. An original model of a treaty used to create new ones.
d. Any new embodiment of an old idea.

8. Keeping the "wolf from the door" means
a. Paying one's bills when they are due.
b. Always having enough to eat.
c. Being on good terms with one's creditors.
d. Having a good credit rating.

9. Sisyphus was a character in Greek mythology who
a. Figured out how to bring water to a town and angered the Gods.
b. Brought fire from the Gods to the people and was punished by being made mortal.
c. Had to roll a boulder to the top of a steep hill, only to have it roll back down and he would have to do it all over again.
d. Loved his own image as seen in a pond, that he fell in and drowned.

10. When Marie Antoinette said her subjects should eat cake, what she meant was:
a. A queen should not have to concern herself with the economics of her people.
b. It was the King's job to take care of such things.
c. She didn't realize that most people didn't want cake, they had other preferences.
d. She was ignorant of the needs of the people, and was indifferent to their suffering.

KNOWLEDGE MAY NOT BE CONTAINED

By Phyllis Guthrie

It was going to happen! Her dream for the past five years was actually about to transpire! Her heart was beating like a metronome set on *vivace* time. She was having difficulty breathing. Her body was dripping perspiration between her breasts and rolling down her back at the same time she was experiencing parched lips!

To her, these physical phenomena were good signs. It meant that she was completely aware and all systems were go. She translated her body's responses to the coming event as excitement, not fear, and thus was able to turn a possible debilitating reaction into a positive advantage.

THE PROGRAM, which was developed by the Department of Education and Survival (DES) as a last ditch effort to counteract rampant illiteracy, was proving highly successful. Every citizen was enrolled in the PROGRAM at birth and assigned several topics to master throughout life. Granted, it took some citizens a lifetime to master their topics, but this fact was counter-balanced by those who mastered their assigned topics early. Everybody was an authority on one subject at least. No one was expected to have a little learning in a lot of different subjects, the emphasis was on having a lot of learning on only a few subjects. Individuals who achieved early mastery of their subjects were then either given more topics to master or they had the opportunity to participate in the national game called, THE PROGRAM.

THE PROGRAM game had long since taken the place of baseball, football, basketball or soccer in everyone's heart, although some younger children still played versions of these archaic games. Anyone accepted for participation in THE PROGRAM game was automatically a star. Every move and thought of the player became grist for the general populace mill. Their autographs were worth hundreds of dollars; whatever preferences they indicated in food or dress or topic would immediately sweep the country creating shortages and thus creating more jobs. A good thing all around.

The game THE PROGRAM, was based on older game shows once watched sporadically by some people in bygone television days. There were elements of Jeopardy, What's My Line, Concentration, and Hollywood Squares all represented but focused on a central theme. The theme would always be dictated by the players because it had to be whatever expertise the player had accumulated since birth on an assigned topic.

Winning was on a zero-tolerance standard. You either knew *everything* about your topic or you didn't. Questions could be submitted and asked from any person in the country. And the person who submitted a question that stumped a player became the

automatic winner without having to put himself in the player position. Consequently, the entire citizenry engaged in trying to find a player's Achilles' heel. Winning meant a life of ease, never having to learn and devote one's life to studying again; never having to tilt at windmills; and best of all, it meant becoming a recognized Brahmin on the board of THE PROGRAM. Losing meant you were not heard from again, although no one dared ask what became of the losers.

The topics she had been assigned at birth, seemed on the surface to be easy, but represented huge undertakings of knowledge. They were: *Quantum Physics* (the easy one because of philosophical limitations): *Philosophy* (the hard one because there were no limitations): and *Nursery Rhymes and Fairy Tales*. Aha! Eureka! She felt very comfortable with this last topic. There were definite parameters. It was possible to classify and group Nursery Rhymes into many different categories that were easy to learn and remember. She would also be able to go on and increase her community standing by being in demand as an authority on a popular subject.

She studied all of her topics as she was required to do, achieved the level of mastery indicated on the government tests, and then, five years ago decided to try for the golden apple. Now here she was, already successful at the first level of questions. She had demonstrated that she knew the more than five hundred European versions of *Cinderella* and over one hundred non-European variants and was able to compare how different cultures have treated the same theme and motifs.

She felt strong--capable of any Augean tasks that could be asked of her as she stepped into the virtual reality booth and connected with the rest of the world. "Here it comes, the next question," she thought. "I'm ready, present the Gordian Knot!"

> "Which familiar nursery rhyme did Lewis Carroll fit so neatly into his fantasy of living playing cards that he printed it without alteration, and included the first stanza that was later dropped by the author in all subsequent editions?"

She swallowed once, smoothed her garment slowly, deliberately, and like Captain Ahab, her sights firmly on the goal at hand and oblivious to everything else she replied:

> "The Queen of Hearts
> She made some tarts,
> All on a summer's day;
> The Knave of Hearts
> He stole the tarts,
> And took them clean away.
> The King of Hearts
> Called for the tarts,
> And beat the Knave full sore;

The Knave of Hearts
Brought back the tarts,
And vow'd he'd steal no more."

There was an all consuming silence, a black hole of sound. Her heart continued to beat, and her confidence was still operational, but now she was beginning to believe reality was about to pin the Red Badge of Courage on her. She felt the passing of time acutely. She held her breath, waiting for the next question--and it came. It came with the death-knell of her hopes.

"It is not generally known that there are three more stanzas to this nursery rhyme. Can you recite them as they were published in the *European Magazine*, issue of April 1782?"

She didn't even know there were three more stanzas, let alone be able to recite them. In all her life of studying this topic no such possibility had ever been hinted at. This had to be a put-up job, a chimera designed to get rid of her. She had not come this far to lose--she still had one ace to play and she played it superbly! When in doubt, attack!.

"I believe the rules of this game state quite clearly that it is an offense, punishable by death, to 'intimidate, ridicule or otherwise humiliate a player for the purpose of personal gain.' You Sir, have insulted the entire country with your, pitiful attempt to discredit my lifetime learning. You should have known that the author of those verses was burned at the symbolic stake for sedition and heresy, along with the offensive words. Those words were never to be heard again by order of the Tribunal and the PROGRAM officials, under threat of death. You Sir, have tried to intimidate me into a position where I would be forced to commit an offense. I hereby refuse to be party to such blatant self-aggrandizement."

She was cheered, she was feted, she was celebrated for her intelligence. Her attacker was "eliminated" and she had attained the goal she had set those five long years ago.

It was however, a Pyrrhic victory. Her head never again rested easy on her pillow, and she was not able to stop learning which had been a main advantage of winning for her. She had however, successfully bluffed THE PROGRAM and eliminated a person who knew she bluffed. But now, as a result of winning, her every waking moment was lived under a sword of Damocles' because two things could still do her in. Knowledge that at

least one other person beside herself possessed. She knew she had bluffed, but so did the person who asked the question. And he had to have gained the information from someone else! Sooner or later the information would surface again. It is impossible to contain knowledge!

Knowledge has no boundaries, it must be shared to be gained!

ACTIVITIES FOR *KNOWLEDGE MAY NOT BE CONTAINED*

1. When something is termed "grist for the mill" it means that it is
   a. going to be chewed up and thrown away.
   b. going to become extremely popular.
   c. something that can be turned to one's advantage.
   d. an ordinary event.

2. Why would everyone want to find a player's Achilles' heel?
   a. There was a reward for returning it.
   b. It would prove to everyone how smart the individual was who found it.
   c. It would give to the person who found it, all the things a player had worked hard to get.
   d. Knowing someone else's weakness gave an advantage to the person so he could win.

3. What advantage does it provide a person to not have to "tilt at windmills?"
   a. There is no advantage.
   b. The advantage is in not having to attempt a task which is unrealistic.
   c. "Tilting at windmills" is one of the "archaic" games no one plays any more.
   d. The rewards are not great enough to warrant the effort it takes.

4. When a contestant is presented with the "Gordian Knot" it means
   a. he must untie it.
   b. the problem is unsolvable.
   c. he must get to the heart of the problem quickly.
   d. there is only one answer to the problem.

5. An "Augean task" is
   a. a task that only kings and nobility are fit to do.
   b. one that members of King Arthur's Round Table had to accomplish to attain knighthood.
   c. a monumental, distasteful and filthy job.
   d. an easy job that everyone fights over to get.

6. A "chimera" is

a. a false accusation instigated by one's peers.
b. a kangaroo court arrangement to prove her unfit.
c. a wild imaginary scenario devised by her enemies.
d. an innovative method for asking questions.

7. Trying for the "golden apple" means
a. making an effort.
b. making money is the main thing.
c. proving it can be done.
d. winning is the goal.

8. When the sword of Damocles falls it means
a. the end of everything.
b. the end of the life of who ever sits beneath it.
c. freedom from stress.
d. danger that was feared would happen, materializes.

9. Having the "red badge of courage" pinned on her meant
a. she was successful.
b. she was not successful.
c. her courage was for nothing.
d. romantic notions of bravery were meaningless in the real world.

10. A Pyrrhic victory is one
a. that rightfully belongs to someone else.
b. that was not what she thought it would be.
c. that cost her peace of mind and was not worth it.
d. that only exists in ones' mind.

BIBLIOGRAPHY

These are the materials I read and absorbed into my philosophy, as well as the sources I have quoted.

Adler, Mortimer, (1982). The Paideia Proposal: An Educational Manifesto. MacMillan, New York.

Anderson, R. C., & Shifrin, Z., "The Meaning of Words in Context," in Spiro, Bruce, and Brewer, *Theoretical Issues in Reading Comprehension* (Hillsdale, N.J.: Erlbaum, 1980), 331-47.

Bloom, Allan, (1987). *The Closing of the American Mind; Simon & Schuster, New York.*

Bremmer, Jan & Roodenbury, Herman (Eds.), (1997). *A Cultural History of Humour.* Blackwell Publishers Inc., Malden, Mass.

Bartlett, F. C., *Remembering* (Cambridge: Cambridge University Press, 1932).

Chall, J. S. (1983). *Stages of Reading Development:* New York: McGraw-Hill.

Gardner, H. (1985). *The Mind's New Science: A History of the Cognitive Revolution.* New York: Basic Books.

Hirsch, E. D. Jr., (1987). *Cultural Literacy: What Every American Needs To Know.* Houghton Miflin Company, Boston, Mass.

Jespersen, Otto (1922). *Language: Its Nature, Development and Origin,* London: Allen/Unwin

Krauss, R. M. and Glucksberg, S. "Social and Nonsocial Speech," *Scientific American* 236 (February 1977): 100-105.

Knopf, I. K. (1996). "Remedial Education: An undergraduate Student Profile". *American Council of Education Research Briefs.* 6 (8), 1-11

Mackie, Robert (ed.) (1981). *Literacy and Revolution: The Pedagogy of Paulo Freire* (New York: Continuum, 19810, p. 1; cited in Keith Walters et al., "Formal and Functional Approaches to Literacy," *Language Arts,* Vol. 64, No. 8, December 1987, p. 865.

Mezirow, J. (1991). *Transformative dimensions of adult learning.* Jossey-Bass, San Francisco

Mieder, Wolfgang (1993). *Proverbs Are Never Out of Season;* Oxford University Press, New York.

Pearson, P. D., Hanson, J., & Gordon, C., "The Effect of Background Knowledge on Young Children's Comprehension of Explicit and Implicit Information," *Journal of Reading Behavior* 11 (1979).

Pinker, Steven (1997). *How the Mind Works;* W. W. Norton & Co.; New York

Putnam, Hilary, "The Meaning of Meaning," in *Philosophical Papers,* vol II (Cambridge: Cambridge University Press, 1975), 215-71.

Reader's Digest General Books, (1990). *A B C's of the Human Mind;* The Reader's Digest Association, Inc.; Pleasantville, New York/

Rosenblatt, L. (1978). *The Reader, the Text, the Poem: The Transactional Theory of the Literary Work.* Southern Illinois University Press. Carbondale, Il.

Rosenblatt, L. (1991). "The reading transaction: What for". In Brenda Miller Power and Ruth Hubbard (eds.) *Literacy in Progress: The Heinemann Reader.* Heinemann, Portsmouth NH.

Roueche, John E. & Roueche, Suanne D. (1994). *Between a Rock and a Hard Place;* Washington, D. C., Community College Press, a division of the American Association of Community Colleges.

Rumelhart, D. E. (1980). "Schemata: The Building Blocks of Cognition." In Spiro, R. J., Bruce, B. C., and Brewer, W. F. (Eds.), *Theoretical Issues in Reading Comprehension.* Hillsdale, N. J.: Lawrence Erlbaum.

Santrock, John W. & Yussen, Steven R. (1984). *Children and Adolescents: A developmental perspective;* Wm. C. Brown Publishers, Dubuque, Iowa.

Shor, Ira (1986). *Culture Wars: School and Society in the Conservative Restoration 1969-1984; Routledge & Kegan Paul, Boston.*

Stucht, T. and McDonald, B. (1989). *Making the Nation Smarter: The Intergenerational Transfer of Cognitive Ability.* San Diego: Applied Behavioral and Cognitive Sciences, Inc.

Stucht, T. Et. al. (1986). "Teachers, Books, Computers and Peers: Integrated Communications Technologies for Adult Literacy Development." Monterey, Calif.: U.S. Naval Postgraduate School.

Von Oech, Roger (1990). *A Whack on the Side of the Head* ;Warner Books, New York, NY.

Vygotsky, L. S. (1965). *Thought and Language,* Wiley, New York.

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